# Mitsuhashi and Maramorosch Insect Medium

**With Sodium bicarbonate**
**1X Liquid Insect Cell Culture Medium**

## Product Code: IML002

## Product Description :

Mitsuhashi and Maramorosch Insect Medium is specially used for the growth and propagation of mosquito cell lines especially *Aedes aegypticus*. It was originally developed to grow cells derived from Leafhopper. Subsequently, it has been used to culture cells derived from a number of insect species.

IML002 is Mitsuhashi and Maramorosch Insect Medium. It needs to be supplemented with 5-20% fetal bovine serum. Lactalbumin hydrolysate serves as a source of free amino acids, whereas yeast extract serves as a source of vitamins. When supplemented with fetal bovine serum, this medium is most commonly used to culture cells derived from a number of mosquitoes. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

## Composition :

| Ingredients | mg/L |
|---|---|
| **INORGANIC SALTS** | |
| Calcium chloride dihydrate | 190.000 |
| Magnesium chloride anhydrous | 46.900 |
| Potassium chloride | 200.000 |
| Sodium bicarbonate | 120.000 |
| Sodium chloride | 7000.000 |
| Sodium phosphate monobasic | 173.900 |
| **OTHERS** | |
| D(+) Glucose | 4000.000 |
| Lactalbumin hydrolysate | 6500.000 |
| Yeast extract | 5000.000 |

## Material required but not provided :

Fetal bovine serum (RM1112/ RM10432)

## Quality Control:

**Appearance**
Yellow to pale yellow colored clear solution.

**pH**
6.70 - 7.30

**Osmolality in mOsm/Kg H2O**
340.00 - 380.00

**Sterility**
No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

**Cultural Response**
The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts and comparing it with a control medium through minimum three subcultures.

**Endotoxin Content**
NMT 10EU/ml

## Storage and Shelf Life:

Store at 15 - 30°C away from bright light.
Shelf life is 18 months.
Use before expiry date given on the product label.

## 1 Identification of the substances/ mixture and of the company/ undertaking

### 1.1 Product Identifiers

| | |
|---|---|
| Product Number | IML002 |
| Product Name | **Mitsuhashi and Maramorosch Insect Medium** w/ Sodium bicarbonate |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**1.2.1** Relevant identified uses Laboratory chemicals, Manufacture of substances

### 1.3 Details of the supplier of the safety data sheet

| | | | |
|---|---|---|---|
| Produced by | HiMedia Laboratories Private Limited | | |
| Address | 23, Vadhani Industrial Estate, LBS Marg, Ghatkopar (W), Mumbai - 400 086 India | | |
| Tel. No. | +91-22-2500 0970, +91-22-2500 1607 | Fax No. | : +91-22-25002468 |
| Mail Id | info@himedialabs.com | Website | : www.himedialabs.com |

### 1.4 Emergency Tel. No.

Emergency Tel. No. Please contact the regional HiMedia representation in your country

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## 2 Hazards Identification

### 2.1 Classification of the substance or mixture

***CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]***

Not a hazardous substance or mixture
according to Regulation (EC) No.1272/2008

### 2.2 Label elements

***Labeling according to Regulation (EC) No.1272/2008***

The product does not need to be labelled in accordance with EC directives or respective national laws.

### 2.3 Other Hazards

None

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## 3 Composition/Information On Ingredients

No components need to be disclosed according to the applicable regulations.

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## 4 First Aid Measures

### 4.1 Description of first aid measures

***General advice***

Show this safety data sheet to the doctor in attendance.

***If inhaled***

If breathed in, move person into fresh air. Consult a physician.

***In case of skin contact***

Wash off with soap and plenty of water. If skin irritation occurs,get medical advice/attention.

***In case of eye contact***
Rinse out with plenty of water with the eyelid held wide open. If eye irritation persists, get medical advice/attention.
***If swallowed***
Rinse mouth with water. Consult a physician if feeling unwell.

**4.2 Most important symptoms and effects, both acute and delayed**
The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

**4.3 Indication of immediate medical attention and special treatment needed**
No data available

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## 5 Fire Fighting Measures

**5.1 Extinguishing media**
***Suitable extinguishing media***
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
***Unsuitable extinguishing media***

**5.2 Special hazards arising from the substance or mixture**
Nature of decomposition products unknown

**5.3 Precautions for fire-fighters**
No data available.

**5.4 Further information**
Wear self-contained breathing apparatus for firefighting if necessary.

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## 6 Accidental Release Measures

**6.1 Personal precautions, protective equipment and emergency procedures**
Use personnel protective equipment. Wear disposable gloves, dust mask and eye protection. Avoid dust formation. For personal protection see section 8.

**6.2 Environmental precautions**
Prevent further leakage or spillage if safe to do so. No special environmental precautions required.

**6.3 Methods and materials for containment and cleaning up**
Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**
For disposal see Section 13.

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## 7 Handling and Storage

**7.1 Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
***Recommended Storage Temperature :*** Store at 15-30°C

**7.3 Specific end uses**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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**8 Exposure Controls/Personal Protection**

**8.1 Control parameters**

Components with workplace control parameters

**8.2 Exposure controls**

***Appropriate engineering controls***

Handle in accordance to general industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the products.

***Personal protective equipment***

***Hygiene measure***

Avoid contact with skin,eyes and clothing. Immediately change contaminated clothing.

***Eye/face protection***

Safety glasses with side-shields conforming to EN 166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

***Skin protection***

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

***Body protection***

Impervious clothing The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

***Respiratory protection***

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

***Environment exposure controls***

Do not let product enter drains.

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**9 Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

| | |
|---|---|
| Appearance | Yellow to pale yellow colored clear solution |
| Odour | No data available |
| Odour Threshold | No data available |
| pH | No data available |
| Melting/freezing point | No data available |
| Initial boiling point and boiling range | No data available |
| Flash point | No data available |
| Upper/lower flammability or explosive limits | No data available |
| Evaporation rate | No data available |
| Flammability (Solid, gas) | No data available |
| Vapour pressure | No data available |
| Relative density | No data available |

| | |
|---|---|
| Partition coefficient: n-octanol/water | No data available |
| Autoignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |
| Vapour density | No data available |
| Thermal decomposition | No data available |

**9.2 Other safety information**

No data available

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**10 Stability and Reactivity**

**10.1 Reactivity**

No data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

No data available

**10.5 Incompatible materials**

No data available

**10.6 Hazardous decomposition products**

None under normal use conditions. Other decomposition products. No data available. In event of fire - refer section 5

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**11 Toxicological Information**

**11.1 Information on toxicological effects**

***Acute toxicity***

No data available

***Skin corrosion/irritation***

No data available

***Serious eye damage/eye irritation***

No data available

***Respiratory or skin sensitisation***

No data available

***Germ cell mutagenicity***

No data available

***Carcinogenicity***

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

***Reproductive toxicity***

No data available

***Specific target organ toxicity- single exposure***

No data available

***Specific target organ toxicity - repeated exposure***
No data available
***Aspiration hazard***
No data available

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**12 Ecological Information**

**12.1 Toxicity**
No data available

**12.2 Persistence and degradability**
No data available

**12.3 Bioaccumulative potential**
No data available

**12.4 Mobility in soil**
No data available

**12.5 PBT and vPvB assessment**
PBT and vPVB assessment not available Chemical safety assessment is not required

**12.6 Other adverse effects**
No data available

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**13 Disposal Considerations**

**13.1 Waste treatments methods**
**Product**
Offer surplus and non-recyclable solutions to a licenced disposal company. Dispose off waste in accordance with all applicable Federal, state and local laws.

**13.2 Contaminated packaging**
Dispose in accordance with all applicable federal, state, and local environmental regulations.

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**14 Transport Information**

**14.1 UN-No**
ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

**14.2 UN proper shipping name**

| | | |
|---|---|---|
| ADNR | : | Not dangerous goods |
| ADR | : | Not dangerous goods |
| IATA_C | : | Not dangerous goods |
| IATA_P | : | Not dangerous goods |
| IMDG | : | Not dangerous goods |
| RID | : | Not dangerous goods |

**14.3 Transport hazard class(es)**
ADNR : - ADR : - IATA_C : - IATA_P : - IMDG : - RID : -

**14.4 Packaging group**

ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

**14.5 Environmental hazards**

**14.6 Special precautions for use**

No data available

**15 Regulatory Information**

This safety datasheet complies with the requirements of Regulation(EC) No. 1907/2006.

**15.1 Safety health and environment regulations/legislation specific for the substance or mixture**

No data available

**15.2 Chemical Safety Assessment**

No data available

**16 Other information**

**Further Information**



The information given in this safety data sheet is believed to be correct yet does not claim to be all inclusive. This document is intended only as a guide for appropriate precautionary handling of the material by properly trained individuals, information here being commensurate with the present state of our knowledge regarding the manner and conditions of use, handling, storage or disposal. The information provided herein shall not be considered as guarantee of the properties of the product. HiMedia Laboratories, shall not be held liable for any damage resulting from improper handling or contact with the above product. Unless explicitly stated on the product or in any of the documentation accompanying the product, it is intended for research or testing purpose only and is not to be used for any other purpose.